

(Atty. Docket No.: FHW-101US)

**IN THE UNITED STATES PATENT DESIGNATED OFFICE (DO/US)  
(National Phase of International Appln.: PCT/GB01/02543  
Publication No. WO 01/98753 A1)**

In re the  
application of: **Eric Atherton**

International Application No.: **PCT/GB 01/02543**

International Filing Date: **8 June 2001**

U.S. Serial No.: **Not yet assigned**

Filed: **Herewith**

For: **CORROSION MONITORING**

Attorney Docket No.: **FHW-101US**

BOX PCT  
Commissioner for Patents  
Washington, D.C. 20231

**PRELIMINARY AMENDMENT**

Dear Sir:

Preliminary to examination of the above-referenced patent application, please amend the above-titled International patent application as follows:

**In the Claims:**

Please amend claims 1 and 3-8 as follows:

1. (Amended) A corrosion monitor, comprising a substantially inert reference electrode, a working electrode composed of a material to be monitored, and a voltage

follower adapted to apply a voltage between the electrodes, wherein the voltage reflects previous values of a current flowing between electrodes.

3. (Amended) A corrosion monitor according to claim 1 in which the current is measured by the voltage follower.
4. (Amended) A corrosion monitor according to claim 3 in which the voltage is proportional to an integration of the current and an output of the voltage follower is introduced to an integrating circuit.
5. (Amended) A corrosion monitor according to claim 4 in which the output of the integrating circuit is introduced to the voltage follower for application to the working electrode.
6. (Amended) A corrosion monitor, comprising a pair of electrodes and electronic circuitry arranged such that DC current flowing between the electrodes is reduced to essentially zero, while allowing any naturally occurring AC current noise to flow unhindered to be monitored.
7. (Amended) A corrosion monitor according to claim 6 in which the electrodes comprise of one substantially inert reference electrode, and one working electrode constructed of a material to be monitored.
8. (Amended) A corrosion monitor according to claim 7 in which a voltage potential is monitored between the inert reference electrode and a third electrode constructed of a substantially inert material.

**Please cancel claim 9.**

**Please add new claim 10 as follows:**

10. (New) A corrosion monitor according to claim 1 in which a voltage potential is monitored between the inert reference electrode and a third electrode composed of a substantially inert material.

**REMARKS**


Preliminary to examination of this application, Applicant amends claims 1 and 3-8, cancels claim 9 and adds new claim 10 to remove multiple dependencies, to provide proper antecedent basis, and to address other matters of form. The foregoing amendments are not related to issues of patentability, and introduce no new matter.

Entry of the foregoing Preliminary Amendment is respectfully in order and requested.

If there are any questions regarding the amendments to the application, we invite the Examiner to call Applicants' representative at the telephone number below.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

In the Claims:

Please amend claims 1 and 3-8 as follows:

1. (Amended) A corrosion monitor, comprising a substantially inert reference electrode, ~~and a working electrode~~ composed of the a material to be monitored, ~~further comprising and~~ a voltage follower adapted to apply a voltage between the electrodes, ~~which wherein the~~ voltage reflects previous values of the a current flowing between electrodes.
3. (Amended) A corrosion monitor according to claim 1 ~~or claim 2~~ in which the current is measured by the voltage follower.
4. (Amended) A corrosion monitor according to claim 3 ~~as dependent on claim 2~~ in which ~~that the~~ voltage is proportional to an integration of the current and an output of the voltage follower is fed introduced to an integrating circuit.
5. (Amended) A corrosion monitor according to claim 4 in which the output of the integrating circuit is ~~fed~~ introduced to the voltage follower for application to the working electrode.
6. (Amended) A corrosion monitor, comprising a pair of electrodes and electronic circuitry arranged such that DC current flowing between the ~~two~~ electrodes is reduced to essentially zero, while allowing any naturally occurring AC current noise to flow unhindered to be monitored.
7. (Amended) A corrosion monitor according to claim 6 in which the ~~two~~ electrodes ~~consist~~ comprise of one substantially inert reference electrode, and one working electrode constructed of ~~the a~~ material to be monitored.

8. (Amended) A corrosion monitor according to ~~any one of the preceding claims~~  
claim 7 in which ~~the~~ a voltage potential is monitored between the inert reference  
electrode and a third electrode ~~also~~ constructed of a substantially inert material.

**Please cancel claim 9.**